

What is claimed is:

1. A method for identifying a compound capable of treating a pain disorder, comprising assaying the ability of the compound to modulate a NT69 nucleic acid expression or NT69 polypeptide activity, thereby identifying a compound capable of treating a pain disorder.
2. The method of claim 1, wherein the pain disorder is selected from the group consisting of inflammatory pain, a neuralgia, a nerve entrapment syndrome, and pain associated with a musculoskeletal disorder.
3. The method of claim 1, wherein the ability of the compound to modulate a NT69 nucleic acid expression or a NT69 polypeptide activity is determined by detecting a NT69 activity of a cell.
4. The method of claim 1, wherein the NT69 is a polypeptide comprising an amino acid sequence which is at least 90 percent identical to the amino acid sequence of SEQ ID NO:2 or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC® as Accession Number PTA2533533 wherein said percent identity is calculated using the ALIGN program for comparing amino acid sequences, a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4.
5. The method of claim 1, wherein the NT69 is a naturally occurring allelic variant of a polypeptide consisting of the amino acid sequence of SEQ ID NO:2, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a complement of a nucleic acid molecule consisting of SEQ ID NO:1 in 6X SSC at 45°C, followed by one or more washes in 0.2X SSC, 0.1% SDS at 65°C.
6. A method for identifying a compound capable of modulating a NT69 activity, comprising:
  - (a) contacting a cell which expresses NT69 with a test compound; and
  - (b) assaying the ability of the test compound to modulate the expression of a NT69 nucleic acid or the activity of a NT69 polypeptide, thereby identifying a compound capable of modulating a NT69 activity.
7. A method for identifying a compound capable of modulating a NT69 activity, comprising:

(a) contacting a polypeptide comprising the amino acid sequence of SEQ ID NO:2 or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC® as Accession Number PTA2533 with a test compound; and

(b) assaying the ability of the test compound to modulate the activity of the polypeptide, thereby identifying a compound capable of modulating a NT69 activity.

8. A method for modulating a NT69 activity comprising contacting a cell expressing the NT69 with a NT69 modulator, thereby modulating the NT69 activity.

9. The method of claim 7, wherein the NT69 is a polypeptide comprising an amino acid sequence which is at least 90 percent identical to the amino acid sequence of SEQ ID NO:2 or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC® as Accession Number PTA2533, wherein said percent identity is calculated using the ALIGN program for comparing amino acid sequences, a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4.

10. The method of claim 8, wherein the NT69 is a naturally occurring allelic variant of a polypeptide consisting of the amino acid sequence of SEQ ID NO:2, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a complement of a nucleic acid molecule consisting of SEQ ID NO:1 in 6X SSC at 45°C, followed by one or more washes in 0.2X SSC, 0.1% SDS at 65°C.

11. The method of any of claims 1-10, wherein the compound or modulator is a small molecule.

12. The method of any of claims 1-10, wherein the compound or modulator is an anti-NT69 antibody.

13. The method of any of claims 1-10, wherein the compound or modulator is an antisense NT69 nucleic acid molecule.

14. The method of any of claims 1-10, wherein the compound or modulator is a NT69 ribozyme.

15. A method for treating a subject having a pain disorder characterized by aberrant NT69 polypeptide activity or aberrant NT69 nucleic acid expression, comprising

administering to the subject a NT69 modulator, thereby treating the subject having a pain disorder.

16. The method of claim 15, wherein said pain disorder is selected from the group consisting of inflammatory pain, a neuralgia, a nerve entrapment syndrome, and pain associated with a musculoskeletal disorder.

17. The method of claim 15, wherein the modulator is selected from the group consisting of a small molecule NT69 agonist, a small molecule NT69 antagonist, a small molecule NT69 inverse agonist, an anti-NT69 antibody, an antisense NT69 molecule, and a NT69 ribozyme.

18. A pharmaceutical formulation for the treatment of pain disorders, comprising a compound that activates NT69 polypeptide activity or NT69 nucleic acid expression, mixed with a pharmaceutically acceptable carrier.

19. A pharmaceutical formulation for the treatment of pain disorders, comprising a compound that inhibits NT69 polypeptide activity or NT69 nucleic acid expression, mixed with a pharmaceutically acceptable carrier.

20. The pharmaceutical formulation of Claim 18 or 19, wherein the compound is selected from the group consisting of a small molecule NT69 agonist, a small molecule NT69 antagonist, a small molecule NT69 inverse agonist, an anti-NT69 antibody, an antisense NT69 molecule, and a NT69 ribozyme.

21. The pharmaceutical formulation of Claim 20 in which the compound is an oligonucleotide encoding an antisense or ribozyme molecule that targets NT69 transcripts and inhibits translation.

22. The pharmaceutical formulation of Claim 20 in which the compound is an oligonucleotide that forms a triple helix with the promoter of the NT69 gene and inhibits transcription.

23. A genetically engineered nonhuman mammal in which the NT69 gene has been inactivated.

24. A transgenic animal which expresses a human NT69 gene.

25. A kit comprising a NT69 nucleic acid molecule or NT69 polypeptide or cells expressing NT69 polypeptide and instructions for use.

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.